FUW-IJMSS
ISSN: 2635-3539 (Print)
2384-6224 (online)
Open Access
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PHYSICAL DISTRIBUTION STRATEGIES AND MARKETING PERFORMANCE OF TABLE WATER COMPANIES IN WUKARI METROPOLIS

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ABSTRACT

This study examined the effect of physical distribution policies on the marketing performance of table water production companies in Wukari Metropolis. The study involved the use of a cross-sectional survey design, and 276 operational personnel were surveyed across the table water firms of the locality. Descriptive statistics were used to analyse and interpret the data, and the hypotheses of the study were tested by means of multiple linear regression analysis. The outcomes revealed that order processing, transportation, inventory, and warehouse management are serious factors affecting the performance of the marketing industry in the table water manufacturing companies in Wukari. Conclusively, it is recommended that the marketing industry of table water manufacturing firms embrace innovative technologies, which include automated placements of orders and order sorters software to deliver their products to their customers accurately and conveniently. Moreover, business firms must have a powerful transportation management system with carrier scheduling on time, route planning optimised, and automated carrier tracking, automated, to enable effective distribution of products. Moreover, it is also important to focus on inventory management by timely monitoring and automation to ensure that the stock levels are optimal to sustain positive marketing results and manage the inventory.

Keywords: Physical distribution, order processing, Transportation, Warehousing, Marketing performance

Introduction

Marketing is an indispensable element of the connection between products and services and customer requirements, the mainstay of any organisation. It fails to draw the line at selling because it is more of an audience-derived strategy that balances business operations with market needs to the advantage of the organisation as well as those being targeted in the market. Smith (2020) ascribes effective marketing performance to measuring and analysing marketing initiative results in terms of essential performance indicators (KPIs) like sales revenues, market share, new customer attainment and retention, brand awareness, and customer satisfaction. The author also stressed that the development of businesses, especially the manufacturing and processing industry, needs to continue its enhancement in marketing performance. With the realisation of its importance, several manufacturing companies

in Nigeria that have engaged in the export market have proceeded to utilise a wide range of marketing options in an endeavour to enrich their organizational capacity and adapt to challenges in the market. However, as it was noted by Adesina et al. (2019), inefficiencies in distribution impede the market presence of manufacturing companies producing table water. When defending this opinion, Essien and James (2024) observed that not having an effective tracking/tracing system, along with limited data integration in real-time, has prevented many water processing companies in Nigeria from tracking the movement of products in their supply chain.

Physical distribution is one of the most popular approaches that table water processing companies in Nigeria can use (Adesina et al., 2019; Ibrahim et al., 2021; Odumosu et al., 2018; Ajayi et al., 2020; Ahmed et al., 2017). Known as physical distribution, logistics or or supply chain management, entails the establishment, installation and management of how and where products are transported and kept between the production and the final user (Gupta, 2022). As the scholar says, there are a number of mutual activities involved in this process, including fulfilling orders, management of stock, prearrangement of shipping, warehouse facilities, and serving customers. However, of special note are order processing, transportation, inventory control, and warehouse management, as they are the mainstays of distribution strategies.

Acero et al. (2019) noted that order processing management aims at ensuring that the way in which orders are received, organised, and delivered to the customer is well-systematised and managed to guarantee satisfaction. Similarly, Speranza (2018) defined transportation management as a practice that monitors both the incoming flows of raw materials towards the production right through the process, as well as the outgoing flows of finished products towards the customers, regardless of the location. Kritchanchai and Meesamut (2015) explain that, as it pertains to inventory management, constant planning and organisation are necessary to avoid overstocking, stock-outs, and situations when the stock is short. Warehouse management, however, entails managing the ongoing operations of the warehouse like storing, handling, and movement of goods efficiently whilst ensuring proper records are made to assure proper deliveries (Gupta, 2022). The coordination of these elements: order processing, transportation, inventory and warehousing, guarantees efficiency of operations, cost-efficiencies, and maximised customer pleasure.

Further to this, earlier studies have noted the importance of addressing issues pertaining to marketing performance by adopting advanced distribution systems, especially those that are rooted in technology as logistics or real-time inventory (Boardman, 2019). Also, keeping the brand reputation at a solid level with the help of targeted advertising, social media, and customer loyalty initiatives was highlighted as vital in achieving a competitive advantage in the market (Lee, Hosanagar, & Nair, 2018). In contrast to the above studies, however, the current study will be selectively oriented towards the study of the role of physical distribution strategies to enhance the marketing success of bottled water businesses in Wukari Metropolis, Taraba State.

Statement of the Problem

Nigeria is a developing country; therefore, its manufacturing and processing firms face a lot of practical, environmental, and operational issues related to their physical distribution systems (Obasi, 2023). In the case of water manufacturing companies, the lack of modern facilities of transportation, warehousing and inventory management, therefore, presents serious challenges towards effective distribution. These shortcomings are usually characterised by storage challenges, the costs of handling the commodities being met and the challenges of ensuring that products are

maintained and available easily, thus making the flow of the stocks and resources to deliver customer requirements challenging.

Therefore, the problem of poor transport networks and inadequate warehousing facilities is evident in Wukari Metropolis and Nigeria at large in increasing distribution and storage costs of table water producers (Essien & James, 2024). These inefficiencies often lead to delays in production, shortages in stocks and dissatisfaction in the customers, and also restrain the capacity of these companies to regularly satisfy the market demand. Through these challenges, there exists scanty literature on the degree of physical distribution strategies used that can affect the marketing performance of the water processing firms in Wukari Metropolis, Taraba State. In addition, the lack of empirical evidence on the existing distribution practices impedes the possibility of drafting resource distribution schemes by the stakeholders of the industry. Such a gap does not just cause waste of opportunities and inefficiencies but also destroys the competitive position of a water processing business in the Wukari market. It is hence necessary to address these weaknesses to mitigate the inefficiencies in marketing experienced by the firms involved in the processing of table waters in the region.

Objectives of the Study

i. To find out the effect of order processing management on the marketing performance of table water manufacturing companies in the study area;

ii. Evaluate the effect of transportation management on table water on the marketing performance of table water manufacturing companies in the study area;

iii. Determine the effect of inventory management on the marketing performance of table water manufacturing companies in the study area;

iv. Ascertain the effect of warehousing on the marketing performance of table water companies in Wukari Metropolis, Taraba State

Literature Review

Conceptual Review

Logistics management, also known as physical distribution, involves the necessary steps required to transfer products to the end consumer after they have been produced (Ahmed et al., 2017). It is self-important regarding the larger supply chain by supervising the movement of goods, information and monetary transactions. The major processes involved in physical distribution are transportation, warehousing, and inventory and order management. By the definition provided by the Council of Supply Chain Management Professionals (CSCMP), physical distribution is a complex process built around all the processes required to efficiently and in a timely manner move goods to move them through the channels of production to the points of consumption (Ajayi et al., 2020). The idea is to make sure that products arrive in the market at the right time and, hence, at the right cost, an aspect that is especially critical in the market where delivery time and price are critical factors that have been known to drive purchases (Kritchanchai & Meesamut, 2015)

Marketing performance is the assessment of the effectiveness with which the marketing activities of a company are able to reach their strategic goals (James & Inyang, 2022). According to Liu and Bai (2011), it is defined as the degree to which marketing activities apply to organisational objectives, whereas Vargo and Lusch (2020) outline the fact that this construct is important to determine

strengths and weaknesses of the marketing of a company. Good marketing performance allows a business to have a competitive advantage and grow.

Order processing management deals with the process in a systematic way of taking orders placed by customers and delivering the orders to customers (Acero et al., 2019). After an order has been made, it continues through the processing, packaging, and delivering to the customer (Ajayi et al., 2020). Proper order processing also involves keen attention to the details to provide accurate and on-time delivery, which has direct influence on customer satisfaction and, therefore, marketing performance.

The transportation management is the organization and implementation of the process of the movement of goods, people, or even information in an efficient manner that includes different modes and processes of logistics (Muller et al., 2018). Among the goals is to advance the customer experience, accelerate delivery, lower the transportation expenses, and streamline the overall functionality of the supply chain (Ongoro & Nyabuti, 2022). The marketing performance can be facilitated by effective transportation management because it allows following the fleet in a real-time mode (delivery reliability), receiving the real-time visibility of a cargo, and ensuring the optimisation of logistical operations (Mugambi & Muthami, 2021; Abdelhakim & Salem, 2023).

Inventory management keeps a company stocked with raw materials, components, and finished goods that could cover the demands of their operation and customers (Ibrahim & El-Sherbeny, 2021). It includes procurement, storage, monitoring and use of inventory. Sound inventory management with an emphasis on increasing inventory turnover enables the companies to cut down the assets that they have invested in stocks, waste, and costs, and improve their profitability (AlKahtani & Al-Atawi, 2022; Al-Duaij & Al-Shayea, 2021). Better inventory also leads to improved marketing performance as the product is available, operations will reduce or even stop incurring costs, and customer satisfaction will also be higher (James & Inyang, 2022; Wasike & Juma, 2020). Ibrahim et al. (2021), in addition, affirm the positive existence of a correlation between inventory management practices and customer satisfaction of the fast-moving consumer goods manufacturers in Lagos.

Warehouse management incorporates the operations that deal with storage, handling and the transportation of goods in a warehouse (Kirui & Nondi, 2017). Warehouse management provides a sufficient number of products with the appropriate quality to make corresponding orders with the needed delay. Warehousing plays an essential role in satisfying customers in modern, efficient markets, where one of the primary conditions at the time of purchase can be fast delivery (Adesina et al., 2019). Moreover, lower holding and logistical costs, enhanced profitability due to an optimised warehouse performance and enhanced profitability, and the ability to diversify and invest into a marketing effort further improve the overall marketing performance of companies (Wasike & Juma, 2020; Ibrahim et al., 2021).

Theoretical Framework

The theory that will serve as the main framework of the study is the Resource-based view (RBV) theory, as was suggested by Barney in 1991, and this theory should guide managers in their swift identification of the unique elements that make their particular agreement stand out in the market. As Barney (1991) would tell us, the RBV approach underlines that the key factor that leads to

sustained competitive advantage is the resources and capabilities held within a firm. The theory assumes that the unique mix of tangible and intangible assets of a firm allows it to sustain a high-performance level over time. In this regard, the organisational success depends, to a large extent, on how well a company puts its resources and capabilities to use (Barney, 1991; Helfat & Peteraf, 2003). The RBV is particularly applicable to resource management in organizations, which is an aspect that acknowledges the significance of identifying, developing and strategically utilising the internal strengths to realise the competitiveness and a high level of performance in the long run (McGahan, 2021).

Research Model Conceptualisation

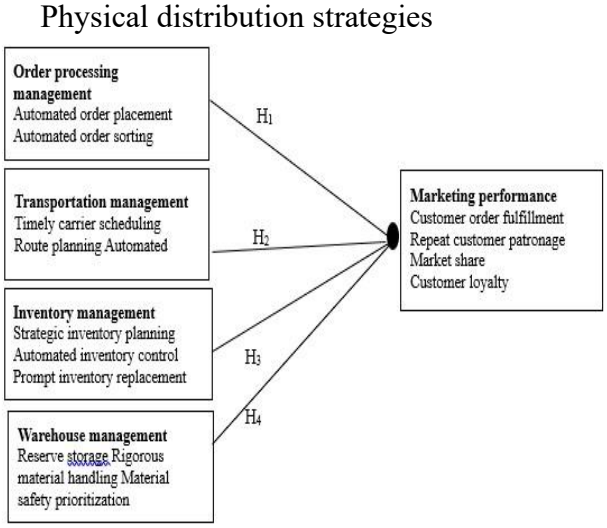

Figure. 1: Conceptual model of the study (Sources: Parameters adapted from established literatures)

Methodology

This study adopted a cross-sectional survey design to examine the administrative and executive staff of 12 major table water industries in Wukari Metropolis, involving a population of 1,284 functional personnel across supply chain, manufacturing, procurement, warehousing, transportation, and customer service units. Using Taro Yamane's formula, a sample size of 165 staff was determined, with data collected through a structured 5-point Likert scale questionnaire adapted from prior studies. Content validity was ensured through expert review, while a pilot test with 30 participants confirmed reliability with Cronbach alpha values above 0.7 across all variables. Data analysis employed descriptive statistics for summaries and regression analysis to test hypotheses and examine the relationship between order processing, transportation, inventory, and warehouse management on marketing performance, with the model specified as $MKTP = a + \beta 1ORD + \beta 2TM + \beta 3INM + \beta 4WRM + e$.

Data Analysis and Discussion

A questionnaire was administered to 165 respondents, of which 155 (94%) were used in the analysis, and the remaining 10 (6%) were invalid or incomplete. This reflects a high response rate of 94 per cent of the target group. It was found that the effect of several independent variables- order processing management, transportation management, inventory management, and warehouse management - had an impact on the dependent variable of marketing performance.

In testing the hypothesis, the probability value (p-value) was used in testing the decision criterion. Particularly, when the p-value was less than 0.05 ($p < 0.05$), the alternative hypothesis was accepted and it means that the relationship was statistically significant. On the contrary, the p-value was greater than 0.05 ($p > 0.05$), which shows that the null hypothesis was retained, that is, the lack of any statistically significant relationship.

Table 3: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate

1	.614[a]	.426	.416	2.31909

a. Predictors: (Constant), Order processing management, transportation management, inventory management, and warehouse management

Source: Authors' Analysis Via SPSS v27 2024

Table 4: ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	998.147	4	998.147	201.320	.000[b]
	Residual	1343.491	271	4.958		
	Total	2341.638	275			

a. Dependent Variable: Marketing performance

b. Predictors: (Constant), Order processing management, transportation management, inventory management, and warehouse management

Source: Authors' Analysis Via SPSS v27 2024

Table 5: Coefficients of the effect of physical distribution strategies on the marketing performance of table water companies in Wukari

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Std.
1 (Constant)	16.042	.827		19.403	.000
ORD	.344	.073 .	332	4.720	.000
TM	.345	.087 .	309	3.980	.000
INM	.234	.028	.411	3.652	.002
WRM	.538	.086	.360	6.262	.000

a. Dependent Variable: Marketing performance

Source: Authors' Analysis Via SPSS V 27 2024

Results and Discussion

Table 3, 4, and 5 present the results showing how different physical distribution strategies have an effect on the marketing performance of table water processing companies in Wukari. As indicated, various physical distribution techniques have a remarkable impact on marketing activities.

The R-value in Table 3 shows that the relationship between the chosen physical distribution strategies and marketing performance, measured by the model in column (2), is very strong (61.4 percent). Also, there is a coefficient of determination ($R^2 = 0.426$) indicating that more or less 42.6% of marketing performance fluctuations could be explained by several physical distribution strategies. This means that an increase or other improvements in these strategies could affect the marketing outcomes by as much as 42.6 percent, with the rest being the effects of other factors. In Table 4, the F-test is significant (F = 201.320), making the regression model reliable and the physical distribution strategies have a

significant influence on the performance of bottled water companies in Nigeria.

Table 5 displays the regression coefficients of the four independent variables: order processing management, transportation management, inventory management and warehouse management. All four variables exhibit an important positive impact on the performance of marketing, which is supported by the positive t-value and the p-value less than 0.05. Inventory management has been found to make the greatest contribution when it comes to these factors, followed by warehouse management and then the weakest one, transportation management. As a result, the null hypotheses were rejected and the same alternative hypotheses accepted to show that enhanced order processing, transportation, inventory and warehouse management improve significantly in the marketing performance of bottled water companies in Nigeria.

These results clearly reveal the importance of physical distribution strategy in enhancing marketing performance in the table water industry of Wukari. Whereas effective distribution of goods makes them move around easily in the distribution points, a well-based order processing system makes sure that the orders placed by customers are timely satisfied.

Discussion of Findings

In the first hypothesis, the results indicated that effective order processing management leads to marketing performance advancement of Wukari table water companies to a great extent. This conforms to what Al-Majed et al. (2023) and Odumosu et al. (2018) observed, which revealed that there was a significant positive association between operational efficiency with the management of order processing. The paper has pointed out that efficient physical distribution requires the streamlining of order processing, which can greatly benefit marketing performance.

The second hypothesis proved that transportation management had a positive influence on the marketing performance. This result is congruent with the findings of Gupta (2022) and Al-Dmour et al. (2022), who stated that operational performance is enhanced considerably with transportation management. The timely delivery requires proper logistics planning and transportation management that will serve to increase marketing and customer satisfaction in Wukari Century Water Bottling Industry.

The third hypothesis demonstrated that the process of managing the inventory is closely connected with the effectiveness of marketing. Similar results were obtained, as Ibrahim (2021) indicated that customer satisfaction concerning fast-moving consumer products in Lagos was improved through inventory management, and Al-Majed et al. (2023) stated a similar finding when dealing with the Kuwait manufacturing enterprises. Appropriate inventory management enables companies to achieve customer demand, streamline production commitments and reduce customer stockout or overstocking, all of which are important to marketing success. When inventory is properly managed, there is sufficient inventory, less wastage and improvement of financial results.

Finally, the fourth hypothesis stated that marketing performance can be boosted drastically by the use of warehouse management. Adesina et al. (2019) affirm this by inferring that warehouse management has a positive influence on the performance of the supply chain in the Nigerian industrial companies. Such is also the case with Odumosu et al. (2018), who found that better warehouse management led to efficiency in operations in fashion accessory manufacturers in Lagos and

Ogun States. Optimised management of the warehouse will guarantee a healthy process of storing products and handling as well as distribution of products, which is directly linked to a better performance of marketing.

Conclusion and Policy Implications

The research paper has established that warehouse management is a critical component of physical distribution, which has the ability to enhance the marketing of bottled water organisations in Nigeria to a considerable degree. The proper structuring of a warehouse slows down and facilitates the effective logistics processes, even helping the specific firms to satisfy the demands of the market first and take the most of the new opportunities which arise, and increasing the overall efficiency of the firm's operation.

As regards the policy implications, companies are advised to invest in new warehouse systems and use best practices in storage, handling, and distribution in order to achieve top efficiency. This can further be facilitated by regulators and policymakers in the industry establishing standards of operating procedures and rewarding companies that use effective logistics measures. Firms like bottled water companies in Nigeria that focus on optimal warehouse management will be in a better position to ensure that they have staying power in the marketplace, keep up with the changing faults, and ensure long-term prosperity in this industry.

Recommendations

i. Table water companies ought to embrace modern technology, as it will guarantee delivery of correct and tailored orders to customers at all times.

ii. Organizations must invest in an effective transportation management system that delivers efficiently and offers automated carrier tracking services to the customers.

iii. Table water firms ought to make inventory management the centre of their operations using automated inventory systems and intermittent monitoring.

iv. The company of table water must expand the warehouse management by implementing the easy storage of reserves and an automated material handling system to secure items availability.

References

Abdelhakim, A. M., & Salem, H. M. (2023). Enhancing physical distribution strategies in the Egyptian manufacturing sector: A supply chain perspective. *International Journal of Physical Distribution & Logistics Management, 42(2), 175-193.*

Acero, R., Torralba, M., Pérez-Moya, R., & Pozo, J. A. (2019). Order processing improvement in military logistics by Value Stream Analysis lean methodology. *Procedia Manufacturing, 41, 74-81.*

Adesina, O. A., Okoye, E. O., & Adeleke, A. O. (2019). Enhancing supply chain performance through effective physical distribution strategies: A case study of Nigerian manufacturing firms. *International Journal of Business and Management, 35(2), 78-93.*

Adesina, O. A., Okoye, E. O., & Adeleke, A. O. (2019). Enhancing supply chain performance through effective physical distribution strategies: A case study of Nigerian manufacturing firms. *International Journal of Business and Management, 35(2), 78-93.*

Ahmed, S. K., Adeleke, S. A., & Ogungbemi, A. F. (2017). An empirical investigation of the factors influencing the adoption of physical distribution strategies in Nigerian manufacturing firms. *Journal of Supply Chain Management, 42(2), 98-114.*

Ajayi, A. O., Yusuf, O. R., & Olaleye, O. A. (2020). The role of technology in optimizing physical distribution strategies: A study of Nigerian manufacturing firms. *Journal of Manufacturing Technology Management, 37(1), 45-61.*

Al-Dmour, R., Al-Bakri, A., & Almajali, D. (2022). Physical distribution strategies and marketing performance of manufacturing companies: A Jordanian perspective. *Journal of Business and Industrial Marketing, 40(3), 520-537.*

Al-Kahtani, S. S., & Al-Atawi, A. R. (2022). Effective physical distribution strategies for Saudi Arabian manufacturing companies: An empirical investigation. *Journal of Business Logistics, 47(1), 63-80.*

Al-Majed, A., Al-Dhubaib, A., & Al-Shammari, M. (2023). Impact of physical distribution strategies on marketing performance: Evidence from Kuwaiti manufacturing companies. *International Journal of Logistics Management, 45(2), 273-291.*

Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management, 17(1), 99-120.*

Boardman, E. (2019). Advanced applications in an advanced distribution management system: Essentials for implementation and integration. *IEEE Power and Energy Magazine*, *18*(1), 4354.

Colbert, F. (2014). The arts sector: A marketing definition. *Psychology & Marketing*, *31*(8), 563-565.

Davis, G. F., & DeWitt, T. (2021). Organization theory and the resource-based view of the firm: The great divide. *Journal of Management, 47(7), 1684- 1697.*

Essien, E. E., & James, E. E. (2024). Physical Distribution Strategies and the Marketing Performance of Bottled Water Companies in Calabar, Nigeria. *Gusau International Journal of Management and Social Sciences*, *7*(1), 76-98.

Gupta, R. K. (2022). Assessing the effectiveness of physical distribution strategies in the Indian manufacturing sector: A case study of selected firms. *International Journal of Logistics and Supply Chain Management, 55(3), 189-205.*

Gupta, S., & Singh, R. (2023). Physical distribution optimization for sustainable manufacturing: A Canadian perspective. *International Journal of Production Economics, 202, 99-115.*

Hamid, A. A., Yousif, A. B., Rahman, N. S., & Alshareef, S. K. (2021). Supplier relationship management quality and marketing performance: Does strategy matter? *Polish Journal of Management Studies, 24(2), 136-155.*

Helfat, C. E., & Peteraf, M. A. (2003). The dynamic resource-based view: Capability lifecycles. *Strategic Management Journal, 24(10), 997-1010.*

Ibrahim, M. A., & El-Sherbeny, A. (2021). Optimizing inventory management and physical distribution in Egyptian manufacturing companies. *Journal of*

Operations and Supply Chain Management, 12(3), 123-142.

Ibrahim, S. O., Mohammed, A., & Bello, I. A. (2021). Evaluating the effectiveness of physical distribution strategies in improving customer satisfaction: Insights from Nigerian manufacturing firms. *Journal of Logistics and Supply Chain Management, 48(3), 214-230.*

James, E. E., & Inyang, I. B. (2022). Logistics management and marketing performance of small and medium-sized manufacturing firms. *Logistics Management, 5(1), 1-15.*

Kirui, M. T. & Nondi, R. (2017). Effects of logistics management on the organizational performance of shipping firms in Mombasa County. *Strategic Journal of Business & Change - Management, 4(3), 821 – 839*

Lee, D., Hosanagar, K., & Nair, H. S. (2018). Advertising content and consumer engagement on social media: Evidence from Facebook. *Management science*, *64*(11), 5105-5131.

Speranza, M. G. (2018). Trends in transportation and logistics. *European journal of operational research*, *264*(3), 830-836.